

Microsoft

AZ-400 Exam

Azure DevOps Engineer Expert

Questions & Answers

(Demo Version - Limited Content)

Thank you for Downloading AZ-400 exam PDF Demo

Get Full File:

<https://www.dumpsfire.com/az-400-dumps/>

Version:47.0

Topic 1, Litware inc. Case Study: 1

Overview

Existing Environment

Litware, Inc. an independent software vendor (ISV) Litware has a main office and five branch offices.

Application Architecture

The company' s primary application is a single monolithic retirement fund management system based on ASP.NET web forms that use logic written in VB.NET. Some new sections of the application are written in C#.

Variations of the application are created for individual customers. Currently, there are more than 80 have code branches in the application's code base.

The application was developed by using Microsoft Visual Studio. Source code is stored in Team Foundation Server (TFS) in the main office. The branch offices access of the source code by using TFS proxy servers.

Architectural Issues

Litware focuses on writing new code for customers. No resources are provided to refactor or remove existing code. Changes to the code base take a long time, AS dependencies are not obvious to individual developers.

Merge operations of the code often take months and involve many developers. Code merging frequently introduces bugs that are difficult to locate and resolve.

Customers report that ownership costs of the retirement fund management system increase continually. The need to merge unrelated code makes even minor code changes expensive.

Requirements

Planned Changes

Litware plans to develop a new suite of applications for investment planning. The investment planning Applications will require only minor integration with the existing retirement fund management system.

The investment planning applications suite will include one multi-tier web application and two iOS mobile applications. One mobile application will be used by employees; the other will be used by customers.

Litware plans to move to a more agile development methodology. Shared code will be extracted into a series of packages.

Litware has started an internal cloud transformation process and plans to use cloud based services whenever suitable.

Litware wants to become proactive in detecting failures, rather than always waiting for customer bug reports.

Technical Requirements

The company's investment planning applications suite must meet the following technical requirements:

- New incoming connections through the firewall must be minimized.
- Members of a group named Developers must be able to install packages.
- The principle of least privilege must be used for all permission assignments
- A branching strategy that supports developing new functionality in isolation must be used.
- Members of a group named Team leaders must be able to create new packages and edit the permissions of package feeds
- Visual Studio App Center must be used to centralize the reporting of mobile application crashes and device types in use.
- By default, all App Center must be used to centralize the reporting of mobile application crashes and device types in use.
- Code quality and release quality are critical. During release, deployments must not proceed between stages if any active bugs are logged against the release.
- The mobile applications must be able to call the share pricing service of the existing retirement fund management system. Until the system is upgraded, the service will only support basic

authentication over HUPS.

- The required operating system configuration for the test servers changes weekly. Azure Automation State Configuration must be used to ensure that the operating system on each test server is configured the same way when the servers are created and checked periodically.

Current Technical

The test servers are configured correctly when first deployed, but they experience configuration drift over time. Azure Automation State Configuration fails to correct the configurations.

Azure Automation State Configuration nodes are registered by using the following command.

```
Register-AzureRmAutomationDscNode  
-ResourceGroupName 'TestResourceGroup'  
-AutomationAccountName 'LitwareAutomationAccount'  
-AzureVMName $vmname  
-ConfigurationMode 'ApplyOnly'
```

Question: 1

HOTSPOT

How should you complete the code to initialize App Center in the mobile application? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

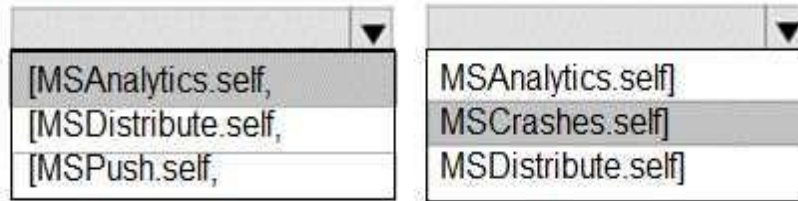
```
MSAppCenter.start  
( "{Your App Secret}",  
  withServices:  
)
```

[MSAnalytics.self, [MSDistribute.self, [MSPush.self,	MSAnalytics.self] MSCrashes.self] MSDistribute.self]
---	---

Answer:

Explanation:

```
MSAppCenter.start  
( "{Your App Secret}",  
  withServices:  
)
```



Scenario: Visual Studio App Center must be used to centralize the reporting of mobile application crashes and device types in use.

In order to use App Center, you need to opt in to the service(s) that you want to use, meaning by default no services are started and you will have to explicitly call each of them when starting the SDK.

Insert the following line to start the SDK in your app's App Delegate class in the `didFinishLaunchingWithOptions` method.

```
MSAppCenter.start("{Your App Secret}", withServices: [MSAnalytics.self, MSCrashes.self])
```

Reference: <https://docs.microsoft.com/en-us/appcenter/sdk/getting-started/ios>

Question: 2

HOTSPOT

How should you configure the release retention policy for the investment planning depletions suite?
To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Required secrets:

▼
Certificate
Personal access token
Shared Access Authorization token
Username and password

Storage location:

▼
Azure Data Lake
Azure Key Vault
Azure Storage with HTTP access
Azure Storage with HTTPS access

Answer:

Explanation:

Required secrets:

▼
Certificate
Personal access token
Shared Access Authorization token
Username and password

Storage location:

▼
Azure Data Lake
Azure Key Vault
Azure Storage with HTTP access
Azure Storage with HTTPS access

Every request made against a storage service must be authorized, unless the request is for a blob or container resource that has been made available for public or signed access. One option for authorizing a request is by using Shared Key.

Scenario: The mobile applications must be able to call the share pricing service of the existing retirement fund management system. Until the system is upgraded, the service will only support basic authentication over HTTPS.

The investment planning applications suite will include one multi-tier web application and two iOS mobile application. One mobile application will be used by employees; the other will be used by customers.

Reference: <https://docs.microsoft.com/en-us/rest/api/storageservices/authorize-with-shared-key>

Question: 3

HOTSPOT

You need to configure a cloud service to store the secrets required by the mobile applications to call the share.

What should you include in the solution? To answer, select the appropriate options in the answer area, NOTE: Each correct selection is worth one point.

Required secrets:

☐ Certificate
☐ Personal access token
☐ Shared Access Authorization token
☐ Username and password

Storage location:

☐ Azure Data Lake
☐ Azure Key Vault
☐ Azure Storage with HTTP access
☐ Azure Storage with HTTPS access

Answer:

Explanation:

Required secrets:

▼
Certificate
Personal access token
Shared Access Authorization token
Username and password

Storage location:

▼
Azure Data Lake
Azure Key Vault
Azure Storage with HTTP access
Azure Storage with HTTPS access

Every request made against a storage service must be authorized, unless the request is for a blob or container resource that has been made available for public or signed access. One option for authorizing a request is by using Shared Key.

Scenario: The mobile applications must be able to call the share pricing service of the existing retirement fund management system. Until the system is upgraded, the service will only support basic authentication over HTTPS.

The investment planning applications suite will include one multi-tier web application and two iOS mobile application. One mobile application will be used by employees; the other will be used by customers.

Reference: <https://docs.microsoft.com/en-us/rest/api/storageservices/authorize-with-shared-key>

Question: 4

To resolve the current technical issue, what should you do to the Register-AzureRmAutomationDscNode command?

A. Change the value of the ConfigurationMode parameter.

B. Replace the Register-AzureRmAutomationDscNode cmdlet with

Register-AzureRmAutomationScheduledRunbook

C. Add the AllowModuleOverwrite parameter.

D. Add the DefaultProfile parameter.

Answer: A

Explanation:

Change the ConfigurationMode parameter from ApplyOnly to ApplyAndAutocorrect.

The Register-AzureRmAutomationDscNode cmdlet registers an Azure virtual machine as an APS Desired State Configuration (DSC) node in an Azure Automation account.

Scenario: Current Technical Issue

The test servers are configured correctly when first deployed, but they experience configuration drift over time. Azure Automation State Configuration fails to correct the configurations.

Azure Automation State Configuration nodes are registered by using the following command.

```
Register-AzureRmAutomationDscNode
  -ResourceGroupName 'TestResourceGroup'
  -AutomationAccountName 'LitwareAutomationAccount'
  -AzureVMName $vmname
  -ConfigurationMode 'ApplyOnly'
```

Reference: <https://docs.microsoft.com/en-us/powershell/module/azurerm.automation/register-azurermautomationdscnode?view=azurerm-6.13.0>

Question: 5

What should you use to implement the code quality restriction on the release pipeline for the investment planning applications suite?

- A. a trigger
- B. a pre deployment approval
- C. a post-deployment approval
- D. a deployment gate

Answer: D

Explanation:

Question: 6

HOTSPOT

How should you configure the release retention policy for the investment planning applications suite? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Global release:

Set the default retention policy to 30 days.
Set the maximum retention policy to 30 days.
Set the stage retention policy to 30 days.
Set the stage retention policy to 60 days.

Production stage:

Set the default retention policy to 30 days.
Set the maximum retention policy to 60 days.
Set the stage retention policy to 30 days.
Set the stage retention policy to 60 days.

Answer:

Explanation:

Global release:

Set the default retention policy to 30 days.
Set the maximum retention policy to 30 days.
Set the stage retention policy to 30 days.
Set the stage retention policy to 60 days.

Production stage:

Set the default retention policy to 30 days.
Set the maximum retention policy to 60 days.
Set the stage retention policy to 30 days.
Set the stage retention policy to 60 days.

Scenario: By default, all releases must remain available for 30 days, except for production releases, which must be kept for 60 days.

Box 1: Set the default retention policy to 30 days

The Global default retention policy sets the default retention values for all the build pipelines. Authors of build pipelines can override these values.

Box 2: Set the stage retention policy to 60 days

You may want to retain more releases that have been deployed to specific stages.

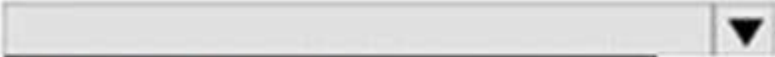
Reference: <https://docs.microsoft.com/en-us/azure/devops/pipelines/policies/retention>

Question: 7

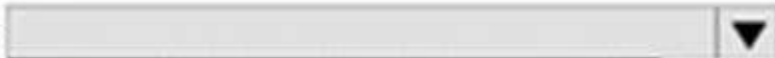
HOTSPOT

Where should the build and release agents for the investment planning application suite run? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Build agent: 

A hosted service
A source control system
The developers' computers

Release agent: 

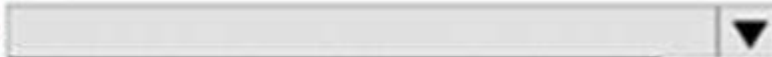
A hosted service
A source control system
The developers' computers

Answer:

Explanation:

Build agent:  ▼

- A hosted service
- A source control system
- The developers' computers

Release agent:  ▼

- A hosted service
- A source control system
- The developers' computers

Box 1: A source control system

A source control system, also called a version control system, allows developers to collaborate on code and track changes. Source control is an essential tool for multi-developer projects.

Box 2: A hosted service

To build and deploy Xcode apps or Xamarin.iOS projects, you'll need at least one macOS agent. If your pipelines are in Azure Pipelines and a Microsoft-hosted agent meets your needs, you can skip setting up a self-hosted macOS agent.

Scenario: The investment planning applications suite will include one multi-tier web application and two iOS mobile applications. One mobile application will be used by employees; the other will be used by customers.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/pipelines/agents/v2-osx?view=azure-devops>

Question: 8

Which branching strategy should you recommend for the investment planning applications suite?

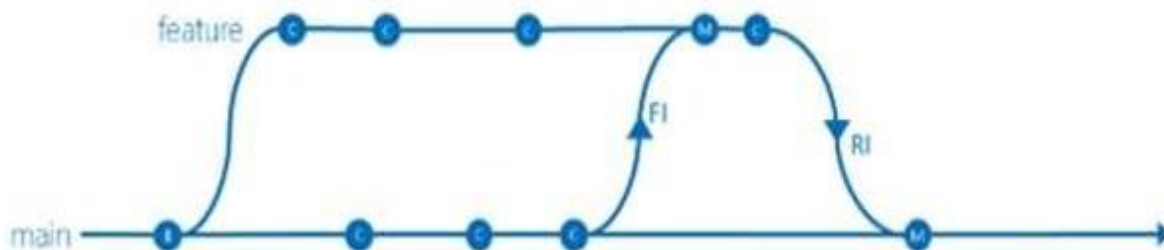
- A. release isolation
- B. main only
- C. development isolation
- D. feature isolation

Answer: D

Explanation:

Scenario: A branching strategy that supports developing new functionality in isolation must be used.

Feature isolation is a special derivation of the development isolation, allowing you to branch one or more feature branches from main, as shown, or from your dev branches.



When you need to work on a particular feature, it might be a good idea to create a feature branch.

Incorrect Answers:

A: Release isolation introduces one or more release branches from main. The strategy allows concurrent release management, multiple and parallel releases, and codebase snapshots at release time.

B: The Main Only strategy can be folder-based or with the main folder converted to a Branch, to

enable additional visibility features. You commit your changes to the main branch and optionally indicate development and release milestones with labels.

C: Development isolation: When you need to maintain and protect a stable main branch, you can branch one or more dev branches from main. It enables isolation and concurrent development. Work can be isolated in development branches by feature, organization, or temporary collaboration.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/repos/tfvc/branching-strategies-with-tfvc?view=azure-devops>

Question: 9

DRAG DROP

Which package feed access levels should be assigned to the Developers and Team Leaders groups for the investment planning applications suite? To answer, drag the appropriate access levels to the correct groups. Each access level may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Access Levels

Collaborator
Contributor
Owner
Reader

Answer Area

Developers:

Team Leaders:

Answer:

Explanation:

Developers:

Team Leaders:

Box 1: Reader

Members of a group named Developers must be able to install packages.

Feeds have four levels of access: Owners, Contributors, Collaborators, and Readers. Owners can add any type of identity-individuals, teams, and groups-to any access level.

Box 2: Owner

Members of a group named Team Leaders must be able to create new packages and edit the

permissions of package feeds.

Permission	Reader	Collaborator	Contributor	Owner
List and restore/install packages	✓	✓	✓	✓
Save packages from upstream sources		✓	✓	✓
Push packages			✓	✓
Unlist/deprecate packages			✓	✓
Delete/unpublish package				✓
Edit feed permissions				✓
Rename and delete feed				✓

Question: 10

You are using GitHub as a source code repository.

You create a client-side Git hook on the commit-msg event. The hook requires that each commit message contain a custom work item tag.

You need to make a commit that does not have a work item tag.

Which git commit parameter should you use?

- A. --squash
- B. --no-verify
- C. --message "
- D. --no-post-rewrite

Answer: B

Explanation:

The commit-msg hook is invoked by git-commit and git-merge, and can be bypassed with the --no-verify option.

Reference:

<https://git-scm.com/docs/githooks>

Question: 11

You have Azure Pipelines and GitHub integrated as a source code repository.

The build pipeline has continuous integration enabled.

You plan to trigger an automated build whenever code changes are committed to the repository.

You need to ensure that the system will wait until a build completes before queuing another build.

What should you implement?

- A. path filters
- B. batch changes
- C. scheduled builds
- D. branch filters

Answer: B

Explanation:

Batching CI runs

If you have many team members uploading changes often, you may want to reduce the number of runs you start. If you set batch to true, when a pipeline is running, the system waits until the run is completed, then starts another run with all changes that have not yet been built.

Example:

```
# specific branch build with batching
```

```
trigger:
```

```
batch: true
```

```
branches:
```

```
include:
```

```
- master
```

To clarify this example, let us say that a push A to master caused the above pipeline to run. While that pipeline is running, additional pushes B and C occur into the repository. These updates do not start new independent runs immediately. But after the first run is completed, all pushes until that point of time are batched together and a new run is started.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/pipelines/repos/github>

Question: 12

HOTSPOT

You are using PowerShell to administer Azure Log Analytics workspaces.

You need to list the available workspaces and their properties.

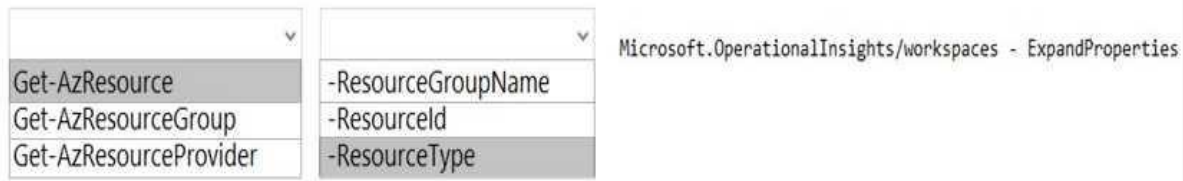
How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

▼ Get-AzResource Get-AzResourceGroup Get-AzResourceProvider	▼ -ResourceGroupName -ResourceId -ResourceType	Microsoft.OperationalInsights/workspaces - ExpandProperties
---	--	---

Answer:

Explanation:



Box 1: Get-AzResource

Use the following command to examine the access control mode for all workspaces in the subscription:

PowerShell

Get-Az Resource -Resource Type Microsoft. Operational Insights/workspaces -Expand Properties |
for each {s.Name + ": " + \$_.Properties.features.enableLogAccessUsingOnlyResourcePermissions

Box 2: -Resource Type

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/logs/manage-access>

Question: 13

HOTSPOT

You have an Azure virtual machine named VM1 that runs Linux.

You plan to deploy the Desired State Configuration (DSC) extension to VM1.

You need to grant the Log Analytics agent the appropriate directory permissions.

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

setfacl -m u:omsagent:

r	/lib
x	/etc
rx	/tmp
rwX	/usr

Answer:

Explanation:

setfacl -m u:omsagent:

r	/lib
x	/etc
rx	/tmp
rwX	/usr

Box 1: rwX

The Log Analytics agent for Linux runs as the omsagent user. To grant >write permission to the omsagent user, run the command setfacl -m u:omsagent:rwX /tmp.

Box 2: /tmp

Deploying DSC to a Linux node uses the /tmp folder.

Reference:

<https://docs.microsoft.com/en-us/azure/automation/automation-dsc-onboarding>

Question: 14

You have a project in Azure DevOps.

You plan to deploy a self-hosted agent by using an unattended configuration script.

Which two values should you define in the configuration script? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A. authorization credentials

- B. the project name
- C. the deployment group name
- D. the organization URL
- E. the agent pool name

Answer: C, E

Explanation:

Unattended config:

The agent can be set up from a script with no human intervention. You must pass --unattended and the answers to all questions.

To configure an agent, it must know the URL to your organization or collection and credentials of someone authorized to set up agents. All other responses are optional.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/pipelines/agents/v2-windows>

Topic 2, Contoso Case Study: 2

Overview

Existing Environment

Contoso, Ltd. is a manufacturing company that has a main office in Chicago.

Requirements

Contoso plans to improve its IT development and operations processes implementing Azure DevOps principles. Contoso has an Azure subscription and creates an Azure DevOps organization.

The Azure DevOps organization includes:

The Docker extension

A deployment pool named Pool7 that contains 10 Azure virtual machines that run Windows Server 2016.

The Azure subscription contains an Azure Automation account.

Planned Changes

Contoso plans to create projects in Azure DevOps as shown in the following table.

Project name	Project details
Project 1	Project1 will provide support for incremental builds and third-party SDK components
Project 2	Project2 will use an automatic build policy. A small team of developers named Team2 will work independently on changes to the project. The Team2 members will not have permissions to Project2.
Project 3	Project3 will be integrated with SonarQube
Project 4	Project4 will provide support for a build pipeline that creates a Docker image and pushes the image to the Azure Container Registry. Project4 will use an existing Dockerfile.
Project 5	Project5 will contain a Git repository in Azure Reports and a continuous integration trigger that will initiate a build in response to any change except for changes within /folder1 of the repository.
Project 6	Project6 will provide support for build and deployment pipelines. Deployment will be allowed only if the number of current work items representing active software bugs is 0.
Project 7	Project7 will contain a target deployment group named Group7 that maps to Pool7. Project7 will use Azure Automation State Configuration to maintain the desired state of the computers in Group7.

Technical Requirements

Contoso identifies the following technical requirements:

- Implement build agents for Project 1.
- Whenever possible, use Azure resources
- Avoid using deprecated technologies
- Implement a code flow strategy for Project2 that will:
 - Enable Team 2 to submit pull requests for Project2.
 - Enable Team 2 to work independently on changes to a copy of Project?
- Ensure that any intermediary changes performed by Team2 on a copy of Project2 will be subject to the same restrictions as the ones defined in the build policy of Project2.
- Whenever possible. Implement automation and minimize administrative effort.

- Implement Protect3, Project5, Project6, and Project7 based on the planned changes.
- Implement Project4 and configure the project to push Docker images to Azure Container Reentry.

Question: 15

DRAG DROP

You need to configure Azure Automation for the computer in Group7.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions**Answer Area**

Run the `Import-AzureRmAutomationDscConfiguration` Azure PowerShell cmdlet.

Create a Desired State Configuration (DSC) configuration file that has an extension of `.ps1`.

Run the `New-AzureRmResourceGroupDeployment` Azure PowerShell cmdlet.

Run the `Start-AzureRmAutomationDscCompilationJob` Azure PowerShell cmdlet.

Create an Azure Resource Manager template file that has an extension of `.json`.



Answer:

Explanation:

Create a Desired State Configuration (DSC) configuration file that has an extension of `.ps1`.

Run the `Import-AzureRmAutomationDscConfiguration` Azure PowerShell cmdlet.

Run the `Start-AzureRmAutomationDscCompilationJob` Azure PowerShell cmdlet.

Step 1: Create a Desired State Configuration (DSC) configuration file that has an extension of .ps1.

Step 2: Run the Import-AzureRmAutomationDscConfiguration Azure Powershell cmdlet

The Import-AzureRmAutomationDscConfiguration cmdlet imports an APS Desired State Configuration (DSC) configuration into Azure Automation. Specify the path of an APS script that contains a single DSC configuration.

Example:

```
PS C:\>Import-AzureRmAutomationDscConfiguration -AutomationAccountName "Contoso17"-  
ResourceGroupName "ResourceGroup01" -SourcePath "C:\DSC\client.ps1" -Force
```

This command imports the DSC configuration in the file named client.ps1 into the Automation account named Contoso17. The command specifies the Force parameter. If there is an existing DSC configuration, this command replaces it.

Step 3: Run the Start-AzureRmAutomationDscCompilationJob Azure Powershell cmdlet

The Start-AzureRmAutomationDscCompilationJob cmdlet compiles an APS Desired State Configuration (DSC) configuration in Azure Automation.

Reference:

<https://docs.microsoft.com/en-us/powershell/module/azurerm.automation/import-azurermautomationdscconfiguration>

<https://docs.microsoft.com/en-us/powershell/module/azurerm.automation/start-azurermautomationdsccompilationjob>

Question: 16

You add the virtual machines as managed nodes in Azure Automation State Configuration.

You need to configure the computer in Group7.

What should you do?

- A. Run the Register-AzureRmAutomationDscNode Azure Powershell cmdlet.
- B. Modify the ConfigurationMode property of the Local Configuration Manager (LCM).
- C. Install PowerShell Core.
- D. Modify the RefreshMode property of the Local Configuration Manager (LCM).

Answer: A

Explanation:

The Register-AzureRmAutomationDscNode cmdlet registers an Azure virtual machine as an APS Desired State Configuration (DSC) node in an Azure Automation account.

Scenario: The Azure DevOps organization includes:

The Docker extension

A deployment pool named Pool7 that contains 10 Azure virtual machines that run Windows Server 2016

Project 7	Project7 will contain a target deployment group named Group7 that maps to Pool7. Project7 will use Azure Automation State Configuration to maintain the desired state of the computers in Group7.
-----------	---

Reference: <https://docs.microsoft.com/en-us/powershell/module/azurermsautomation/register-azurermsautomationdscnode>

Question: 17

In Azure DevOps, you create Project3.

You need to meet the requirements of the project.

What should you do first?

- A. From Azure DevOps, create a service endpoint.
- B. From Sonar Qube, obtain an authentication token.
- C. From Azure DevOps, modify the build definition.
- D. From Sonar Qube , create a project.

Answer: A

Explanation:

The first thing to do is to declare your Sonar Qube server as a service endpoint in your VSTS/DevOps project settings.

Reference:

<https://docs.sonarqube.org/display/SCAN/Analyzing+with+SonarQube+Extension+for+vsts-TFS>

Question: 18

HOTSPOT

How should you configure the filters for the Project5 trigger? To answer, select the appropriate option in the answer area.

NOTE: Each correct selection is worth one point.

Set a ▼ /folder1.

branch filter to exclude
branch filter to include
path filter to exclude
path filter to include

Set a ▼ /.

branch filter to exclude
branch filter to include
path filter to exclude
path filter to include

@

Answer:

Explanation:

Set a ▼ /folder1.

branch filter to exclude
branch filter to include
path filter to exclude
path filter to include

Set a ▼ /.

branch filter to exclude
branch filter to include
path filter to exclude
path filter to include

@

Scenario:

Project5 will contain a Git repository in Azure Reports and a continuous integration trigger that will initiate a build in response to any change except for changes within /folder1 of the repository.

Reference: <https://docs.microsoft.com/en-us/azure/devops/pipelines/build/triggers>

Question: 19

DRAG DROP

You need to implement the code flow strategy for Project2 in Azure DevOps.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange in the correct order.

Actions**Answer Area**

Create a fork

Create a branch

Add a build validation policy.

Add a build policy

Create a repository

Add an application access policy.



Answer:

Explanation:

Answer Area

Create a repository

Create a branch

Add a build validation policy.

Step 1: Create a repository

A Git repository, or repo, is a folder that you've told Git to help you track file changes in. You can have any number of repos on your computer, each stored in their own folder.

Step 2: Create a branch

Branch policies help teams protect their important branches of development. Policies enforce your team's code quality and change management standards.

Step 3: Add a build validation policy

When a build validation policy is enabled, a new build is queued when a new pull request is created or when changes are pushed to an existing pull request targeting this branch. The build policy then evaluates the results of the build to determine whether the pull request can be completed.

Scenario:

Implement a code flow strategy for Project2 that will:

Enable Team2 to submit pull requests for Project2.

Enable Team2 to work independently on changes to a copy of Project2.

Ensure that any intermediary changes performed by Team2 on a copy of Project2 will be subject to the same restrictions as the ones defined in the build policy of Project2.

Project2 will use an automatic build policy. A small team of developers named Team2 will work independently on changes to the project. The Team2 members will not have permissions to Project2.

Reference: <https://docs.microsoft.com/en-us/azure/devops/repos/git/manage-your-branches>

Question: 20

DRAG DROP

You need to configure Azure Automation for the computers in Pool7.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions		Answer Area
Run the New-AzureRmResourceGroupDeployment Azure PowerShell cmdlet.		1
Create an Azure Resource Manager template file that has an extension of .json.	>	2
Run the Import-AzureRmAutomationDscConfiguration Azure PowerShell cmdlet.	<	3
Run the Start-AzureRmAutomationDscCompilationJob Azure PowerShell cmdlet.		
Create a Desired State Configuration (DSC) configuration file that has an extension of .ps1.		

Answer:

Explanation:

Actions		Answer Area
Run the New-AzureRmResourceGroupDeployment Azure PowerShell cmdlet.		1 Create a Desired State Configuration (DSC) configuration file that has an extension of .ps1.
Create an Azure Resource Manager template file that has an extension of .json.	>	2 Run the Import-AzureRmAutomationDscConfiguration Azure PowerShell cmdlet.
	<	3 Run the Start-AzureRmAutomationDscCompilationJob Azure PowerShell cmdlet.

Question: 21

DRAG DROP

You need to implement Project6.

Which three actions should you perform in sequence? To answer, move the appropriate actions from

the list of actions to the answer area and arrange them in the correct order.

Actions		Answer Area
Open the release pipeline editor.		1
Open the Triggers tab.		2
Disable the continuous integration trigger.		3
Enable Gates.	> <	
Add a manual intervention task.		
Add Query Work Items.		

↑

↓

Answer:

Explanation:

Open the release pipeline editor.

Enable Gates.

Add Query Work Items.

Scenario: Implement Project3, Project5, Project6, and Project7 based on the planned changes

Project 6	Project6 will provide support for build and deployment pipelines. Deployment will be allowed only if the number of current work items representing active software bugs is 0.
-----------	---

Step 1: Open the release pipeline editor.

In the Releases tab of Azure Pipelines, select your release pipeline and choose Edit to open the

pipeline editor.

Step 2: Enable Gates.

Choose the pre-deployment conditions icon for the Production stage to open the conditions panel.
Enable gates by using the switch control in the Gates section.

Step 3: Add Query Work items.

Choose + Add and select the Query Work Items gate.

Configure the gate by selecting an existing work item query.

Deployment gates ⓘ

+ Add ✓

Query Work Items

Enabled

Query Work Items ⓘ

Task version 0,* ▼

Display name *
Query Work Items

Query * ⓘ
Active Bugs ▼

Upper threshold * ⓘ
0

Advanced ^

Lower threshold * ⓘ
0

Output Variables ^

Reference name ⓘ

Variables list
There are no output variables associated with this task [more information](#) ⓘ

Evaluation options ▼

Note: A case for release gate is:

Incident and issues management. Ensure the required status for work items, incidents, and issues. For example, ensure deployment occurs only if no priority zero bugs exist, and validation that there are no active incidents takes place after deployment.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/pipelines/release/deploy-using-approvals?view=azure-devops#configure-gate>

Question: 22

DRAG DROP

You need to implement the code flow strategy for Project2 in Azure DevOps.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Create a repository

Add a build policy for the fork.

Create a branch.

Add a build policy for the master branch.

Add an application access policy.

Create a fork.

Answer Area

Answer:

Explanation:

Answer Area

Create a repository

Add a build policy for the master branch.

Create a branch.

Question: 23

You need to implement Project4.

What should you do first?

- A. Add the FROM instruction in the Dockerfile file.
- B. Add a Copy and Publish Build Artifacts task to the build pipeline.
- C. Add a Docker task to the build pipeline.
- D. Add the MAINTAINER instruction in the Dockerfile file.

Answer: C

Explanation:

Scenario: Implement Project4 and configure the project to push Docker images to Azure Container Registry.

Project 4	Project4 will provide support for a build pipeline that creates a Docker image and pushes the image to the Azure Container Registry. Project4 will use an existing Dockerfile.
-----------	--

You use Azure Container Registry Tasks commands to quickly build, push, and run a Docker container image natively within Azure, showing how to ofload your "inner-loop" development cycle to the cloud. ACR Tasks is a suite of features within Azure Container Registry to help you manage and modify container images across the container lifecycle.

Reference:

<https://docs.microsoft.com/en-us/azure/container-registry/container-registry-quickstart-task-cli>

Question: 24

DRAG DROP

You need to recommend a procedure to implement the build agent for Project1.

Which three actions should you recommend be performed in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Sign in to Azure DevOps by using an account that is assigned the Administrator service connection security role.

Install the Azure Pipelines agent on on-premises virtual machine.

Create a personal access token in the Azure DevOps organization of Contoso.

Install and register the Azure Pipelines agent on an Azure virtual machine.

Sign in to Azure DevOps by using an account that is assigned the agent pool administrator role.

Answer Area

Answer:

Explanation:

Sign in to Azure DevOps by using an account that is assigned the Administrator service connection security role.

Create a personal access token in the Azure DevOps organization of Contoso.

Install and register the Azure Pipelines agent on an Azure virtual machine.

Scenario:

Project 1	Project1 will provide support for incremental builds and third-party SDK components
-----------	---

Step 1: Sign in to Azure Develops by using an account that is assigned the Administrator service connection security role.

Note: Under Agent Phase, click Deploy Service Fabric Application. Click Docker Settings and then click Configure Docker settings. In Registry Credentials Source, select Azure Resource Manager Service Connection. Then select your Azure subscription.

Step 2: Create a personal access token..

A personal access token or PAT is required so that a machine can join the pool created with the Agent Pools (read, manage) scope.

Step 3: Install and register the Azure Pipelines agent on an Azure virtual machine.

By running a Azure Pipeline agent in the cluster, we make it possible to test any service, regardless of type.

Reference:

<https://docs.microsoft.com/en-us/azure/service-fabric/service-fabric-tutorial-deploy-container-app-with-cicd-vsts>

<https://mohitgoyal.co/2019/01/10/run-azure-devops-private-agents-in-kubernetes-clusters/>

Topic 3, Woodgrove bank

Overview

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview

General Overview

Woodgrove Bank is a financial services company that has a main office in the United Kingdom.

Technical Requirements and Planned Changes

Planned Changes

Woodgrove Bank plans to implement the following project management changes:

Implement Azure DevOps for project tracking.

Centralize source code control in private GitHub repositories.

Implement Azure Pipelines for build pipelines and release pipelines.

Woodgrove Bank plans to implement the following changes to the identity environment:

Deploy an Azure AD tenant named woodgrovebank.com.

Sync the Active Directory domain to Azure AD.

Configure App1 to use a service principal.

Integrate GitHub with Azure AD.

Woodgrove Bank plans to implement the following changes to the core apps:

Migrate App1 to ASP.NET Core.

Integrate Azure Pipelines and the third-party build tool used to develop App2.

Woodgrove Bank plans to implement the following changes to the DevOps environment:

Deploy App1 to Azure App Service.

Implement source control for the DB1 schema.

Migrate all the source code from TFS1 to GitHub.

Deploy App2 to an Azure virtual machine named VM1.

Merge the POC branch into the GitHub default branch.

Implement an Azure DevOps dashboard for stakeholders to monitor development progress.

Technical Requirements

Woodgrove Bank identifies the following technical requirements:

The initial databases for new environments must contain both schema and reference data.

An Azure Monitor alert for VM1 must be configured to meet the following requirements:

Be triggered when average CPU usage exceeds 80 percent for 15 minutes.

Calculate CPU usage averages once every minute.

The commit history of the POC branch must replace the history of the default branch.

The Azure DevOps dashboard must display the metrics shown in the following table.

Number	Required data
1	A comparison between the work the development team planned to deliver and what was delivered
2	The status of the environments in a release definition
3	The total number of results from a work item query

Access to Azure DevOps must be restricted to specific IP addresses.

Page load times for App1 must be captured and monitored.

Administrative effort must be minimized.

Question: 25

HOTSPOT

You need to configure the alert for VM1. The solution must meet the technical requirements.

Which two settings should you configure? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

Alert logic

Threshold ⓘ

Static Dynamic

Operator ⓘ

Greater than ▼

Aggregation type * ⓘ

Average ▼

Threshold value * ⓘ

▼

%

Condition preview

Whenever the average percentage cpu is greater than <logic undefined> %

Evaluated based on

Aggregation granularity (Period) * ⓘ

5 minutes ▼

Frequency of evaluation ⓘ

Every 1 Minute ▼

Answer:

Explanation:

Alert logic

Threshold ⓘ

Static Dynamic

Operator ⓘ

Greater than ▼

Aggregation type * ⓘ

Average ▼

Threshold value * ⓘ

▼

%

Condition preview

Whenever the average percentage cpu is greater than <logic undefined> %

Evaluated based on

Aggregation granularity (Period) * ⓘ

5 minutes ▼

Frequency of evaluation ⓘ

Every 1 Minute ▼

Setting 1: Threshold value

Set to 80 %

Scenario: An Azure Monitor alert for VM1 must be configured to meet the following requirements:

Be triggered when average CPU usage exceeds 80 percent for 15 minutes.

Calculate CPU usage averages once every minute.

Setting 2: Aggregation granularity

Set to 15 minutes.

Question: 26

You need to meet the technical requirements for controlling access to Azure DevOps.

What should you use?

- A. Azure Multi-Factor Authentication (MFA)
- B. on-premises firewall rules
- C. conditional access policies in Azure AD
- D. Azure role-based access control (Azure RBAC)

Answer: B

Explanation:

Scenario: Access to Azure DevOps must be restricted to specific IP addresses.

Azure DevOps is authenticated through Azure Active Directory. You can use Azure AD's conditional access to prevent logins from certain geographies and address ranges.

Reference:

<https://www.rebeladmin.com/2018/08/step-step-guide-configure-location-based-conditional-access-policies/>

Question: 27

You need to configure Azure Pipelines to control App2 builds.

Which authentication method should you use?

- A. Windows NTLM
- B. certificate
- C. SAML
- D. personal access token (PAT)

Answer: D

Explanation:

Scenario: Deploy App2 to an Azure virtual machine named VM1.

A personal access token (PAT) is used as an alternate password to authenticate into Azure DevOps.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/organizations/accounts/use-personal-access-tokens-to-authenticate>

Question: 28

DRAG DROP

You need to replace the existing DevOps tools to support the planned changes.

What should you use? To answer, drag the appropriate tools to the correct targets. Each tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Tools

Azure Boards

Azure Artifacts

GitHub Actions

Azure Pipelines

Azure Test Plans

GitHub repositories

Answer Area

Trello:

Tool

Bamboo:

Tool

BitBucket:

Tool

Answer:

Explanation:

Trello:

Azure Boards

Bamboo:

Azure Pipelines

BitBucket:

GitHub repositories

Box 1: Azure Boards

Azure Boards can be used to track work with Kanban boards, backlogs, team dashboards, and custom reporting

You can create multiple Trello boards, which are spaces to store tasks (for different work contexts, or even private boards)

You can easily share Trello boards with another person.

Box 2: Azure Pipelines

You can use Bamboo to implement CI/CD (Continuous Integration and Continuous Delivery) for a simple Azure function app using Atlassian Bamboo. Bamboo does continuous delivery of the project from source code to deployment. It has stages including Build, Test and Deploy.

Software teams in every industry are upgrading their continuous delivery pipeline with Bamboo. Easy build import from popular open source tools, user and group import from JIRA, seamless integration with Bitbucket, and native support for Git, Hg, and SVN means you'll be building and deploying like a champ.

Box 3: GitHub repositories

Bitbucket can be used as the Git repository, but you can use any other Git repository (Like TFS Git) for source control of the code.

Reference:

<https://www.trustradius.com/compare-products/azure-devops-services-vs-trello>

<https://marketplace.visualstudio.com/items?itemName=ms-vsts.vss-services-bamboo>

<https://www.c-sharpcorner.com/article/cicd-implementation-for-an-azure-function-app-using-atlassian-bamboo-server/>

Question: 29

DRAG DROP

You need to configure authentication for App1. The solution must support the planned changes.

Which three actions should you perform in sequence? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

Actions Commands Cmdlets Statements**Answer Area**

Create an app.

Add a secret.

Create a credential.

Configure the ID and secret for App1.

Create a managed service identity.



Answer:

Explanation:

Create an app.

Create a managed service identity.

Configure the ID and secret for App1.

Woodgrove Bank plans to implement the following changes to the identity environment:

Configure App1 to use a service principal.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-create-service-principal-portal>

Question: 30

You need to perform the GitHub code migration. The solution must support the planned changes for the DevOps environment.

What should you use?

- A. git clone
- B. GitHub Importer
- C. Import repository in Azure Repos
- D. git-tfs

Answer: A

Explanation:

Woodgrove Bank plans to implement the following changes to the DevOps environment:

Migrate all the source code from TFS1 to GitHub.

The Git-TFS tool is a two-way bridge between Team Foundation Version Control and Git, and can be used to perform a migration.

Reference:

<https://docs.microsoft.com/en-us/devops/develop/git/migrate-from-tfvc-to-git>

Thank You for trying AZ-400 PDF Demo

<https://www.dumpsfire.com/az-400-dumps/>

Start Your AZ-400 Preparation

[Limited Time Offer] Use Coupon " **Fire20** " for extra 20% discount on the purchase of PDF file. Test your AZ-400 preparation with actual exam questions